AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 | 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	18-Apr-2003	W22W9K-3078-7550	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USA ENGINEER DISTRICT, LOUISVILLE ATTN: CELRL-CT 600 DR. MARTIN LUTHER KING PLACE ROOM 821 LOUISVILLE KY 40202	DACA27	MILITARY/RESERVE TEAM 600 DR. M. L. KING, JR. PL., RM 821 ATTN: TOM E. DICKERT LOUISVILLE KY 40202-2230	DACA27

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. DACA27-03-R-0013
	X	9B. DATED (SEE ITEM 11) 07-Apr-2003
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

SOLICITATION DACA27-03-R-0013, CONSTRUCTION & MAINTENANCE OF U.S. ARMY RESERVE CENTER COMPLEX, ROCHESTER, NH IS AMENDED AS FOLLOWS:

Specification 02851, Five-Year Maintenance Requirements, is hereby added (see attached).

Section 00800, Part 1.32, Paragraph 2, last sentence is changed to read, "The office and office equipment shall be cleaned and then serviced a minimum of biweekly".

All other terms and conditions remain unchanged. No change to due date for receipt of proposals.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 18-Apr-2003

SECTION 02851

9 April 2003

FIVE-YEAR MAINTENANCE REQUIREMENTS

4. SYSTEMS OPERATION AND MAINTENANCE MANUALS (SOMM)

5. COMPREHENSIVE FACILITY MANAGEMENT PLAN (CFMP)

5.1 General

5.2. Submittal

5.3 Minimum Requirements

5.4 Organization and Staffing Plan

5.5 Security Plan

5.6 Safety Program Plan

5.7 Training Plan

5.8 Warranty Plan

5.9 Contract Maintenance Plan

5.10 Anti-Terrorism Force Protection

5.11 Preventive Maintenance Plan

5.12 Quality Control Plan

6. O&M SUCCESSOR

7. GOVERNMENT-PROVIDED FACILITIES AND SERVICES

8. GOVERNMENT QUALITY ASSURANCE (QA)

9. CONTRACTOR CLEAN-UP

EXHIBIT SOW-1 DEFINITIONS AND ABBREVIATIONS

EXHIBIT SOW-2 ORGANIZATION OF SOMM

EXHIBIT SOW-3 INDEX OF VOLUMES

1. PERFORMANCE REQUIREMENTS:

1.1. Overview. Reference National Defense Authorization Act for Fiscal year 2002, Section 2813 and as modified by Section 2813 in the 2003 Act for "Demonstration Program on Reduction in Long Term Facility Operating, Maintenance and Energy Costs. The Rochester, NH USARC project is the first Army Reserve project under the referenced DoD pilot program investigating extending the life cycle of government facilities due to historically poor and under budgeted maintenance programs by having the construction contractor responsible for maintaining the facilities for a five year period immediately following construction. During and at conclusion of the pilot initiatives, the DoD construction agencies are to report back to Congress regarding lessons learned that could be applied in the future.

1.1.1 During the Operations and Maintenance (O & M) phase of the contract, the Contractor shall maintain the facilities systems of the Rochester United States Army Reserve Center (USARC); perform systematic preventive maintenance (PM); provide for continuous commissioning of critical systems; and perform unscheduled maintenance as necessary to:

- Assure continuous facility operations and prevent disruptions that could adversely affect the mission of the Rochester USARC and,
- Prevent premature failure or deterioration of the facility, facility systems, and equipment constructed or installed under the construction phase of the contract and,
- Be responsible for the repair or replace on all aspects of the building **NOT** defined under 1.1.3.2

1.1.2 One of the driving features on this pilot program is the notion that the construction contractor will place greater emphasis during construction on equipment selection, installation, and overall craftsmanship knowing that they will be responsible for maintaining the facilities for 5 years after the Beneficial Occupancy Date (BOD).

1.1.3 In order for the contract to be bid in a fixed cost environment, important aspects must be delineated with regard to what is, and what is not, covered by the contractor during the 5 year maintenance period. In an attempt to provide a general direction, the following items outlined in 1.1.3.1 and 1.1.3.2, although not totally inclusive, represents suitable information for pricing a fixed cost contract over the 5 year pilot period. In addition to information outlined within paragraphs 1.1, the contractor is expected to draw on and consider the normal routine maintenance expectations for a building of similar size and function in determining the fixed maintenance cost over the life of the 5 year pilot program in order to adequately define associated risks and costs in preparing a firm fixed price contract.

1.1.3.1 Items Included as Contractor's Responsibility: The contractor shall perform all preventive maintenance (scheduled PM) and corrective maintenance (unscheduled repair or replacement) on all aspects of the building. Those aspects include all the facility, all facility systems, and all equipment constructed or installed under the construction phase of the contract.

(Exceptions are only those items listed in 1.1.3.2.) The more common tasks that fall under the contractor's responsibility may be further described in other paragraphs of this SOW. Of the more obscure tasks that also fall under the contractor's responsibility, some but not all are listed below, in order to illustrate a brief sampling of items that might not be thought of but that are indeed the contractor's responsibility. The tasks, whether more common or more obscure, are not limited to the following list:

Architectural:	Repair or placement of Doors / Hardware / Windows resulting from normal wear and tear and accidental damage.
	Patch & Paint damaged wall surfaces during normal usage.
	Repair or replacement of damaged floor or ceiling tiles
Plumbing:	Unclogging stopped up drains (interior and exterior)
	Repair and/or replacement of leaking pipes, valves, drains (interior and exterior)
HVAC:	Repair and routine maintenance of HVAC systems
Electrical:	Replacement of burned out light bulbs (interior and exterior)
	Replacement of switches and receptacles
Site Work:	Pavement patch and repair

1.1.3.2 Items Not Included as Contractors Responsibility:

- Landscape Maintenance
- Grass Cutting and Snow Removal
- Normal custodial work (cleaning services, restocking consumable supplies, office and shop routine trash removal, etc)
- Repair or maintenance of non-contractor supplied materials and equipment (furniture, PE equipment, shop equipment, military equipment, etc)
- Routine emptying of oil water separator and grease traps.
- Government security systems

1.1.4 Training Center Operations: In order for the contractor to assemble a fixed price proposal, it is important to delineate how the facility will function and operate. The purpose of the facility

is to train U.S. Army Reserve solders in their mission and unit specialties. The typical reserve soldier is a member of the community which they are drawn from who work in full time jobs in support of their community. The majority of the training will be conducted indoor in a classroom type environment and also at the vehicle maintenance shop. NOTE: Although there will be minimal small arms stored on site in a secure Class V vault, there will be no weapons training at this facility. In addition there will be no wheeled or tracked weapons at this site.

Number of Full Time Weekday Personnel: 10

Number of Weekend Reservists: There will be 3 drill weekends/mo with a max of 250/wk end

Hours of Operation: Weekday - 7:30 AM – 4:00 PM

Weekend - 7:30 AM – 5:00 PM (3 weekends / month)

Military Equipment will be stored and maintained at this site and will be stored generally in the rear of the property shielded from view to the maximum extent possible. The military equipment is maintained on a regularly scheduled basis and normally do not operate outside of the compound except to "exercise" them perhaps on a monthly bases. The vehicles are also used to haul troops and materials for the annual training exercises which they will be packed and convoyed to a military installation for 2 weeks and return.

1.2 Contract Scope. The Contractor shall furnish, or arrange for the providing of all labor, tools, equipment, staff and management required to perform the duties included in the Statement of Work (SOW) for the maintenance phase of this contract to be accomplished at the Rochester U.S. Army Reserve facilities located at Somersworth, NH.

1.3 Performance Period. The Contractor shall operate the facilities systems of the Rochester USARC for a five-year period beginning at the BOD.

1.4 Specific Requirements. The Contractor shall provide the following:

1.4.1 Operation and Preventive Maintenance (paragraph 1.5).

1.4.3 Continuous Commissioning of Critical Systems (paragraph 1.6).

1.4.4 Unscheduled Maintenance (paragraph 1.7).

1.4.5 A Contract Facility Manager (CFM) and appropriate supporting maintenance staff. (paragraph 2).

1.4.6 A computer-based Facility Management System (FMS)(paragraph 3).

1.4.7 Systems O & M Manuals (paragraph 4).

1.4.8 Comprehensive Facility Management Plan (CFMP)(paragraph 5).

1.4.9 A plan for and implementation of a transition to another organization for O & M of the facility after the initial 5 year O&M phase (O&M Successor) (paragraph 1.5).

1.5 Operation and PM:

1.5.1 Operate the facility systems of the Rochester USARC to ensure optimal efficiency.

1.5.2 Manage the operation of the facility maintenance program, including the implementation and maintenance of a computerized Facilities Management System (FMS) (See Section 3).

1.5.3 Perform or provide systematic PM and unscheduled/corrective maintenance as necessary in order to assure continuous facility operation and to prevent disruptions that could adversely affect the mission of the Rochester USARC.

1.5.4 Manage or Perform necessary actions to preserve warranties (during warranty periods).

1.5.5 Take all reasonable measures to prevent premature failure/deterioration of facilities and facility systems/equipment constructed/installed under the construction portion of this contract.

1.5.6 The Contractor shall furnish and install storage bins and cabinets with the minimum emergency stock of replacement equipment, supplies and spare parts in a place designated by the Government. At the conclusion of the contract period, the Contractor shall provide a complete inventory list along with projected stock to last one full year from the point of termination.

1.6 Continuous Commissioning of Critical Systems:

1.6.1 Continuous commissioning is a concept of maintaining critical systems and critical facility components to assure that a system reaches its expected life expectancy and that efficiency of operations is maintained throughout a system's life. Continuous commissioning not only assures that the equipment is operating at peak efficiency at start-up, but that adjustment, for environmental and operational conditions, would keep the equipment and systems performing at maximum efficiency.

1.6.2 The following have been identified as critical systems for the Rochester USARC:

Division 2 - Pavement

Sections (All) - Complete asphalt and concrete pavement

Division 7 – Roofing Systems

Section 07412 – Standing Seam Metal Roofing System (SSMRS)

Division 11 – Equipment

Section 11331 – Package Wash Water Recycle System

Section 11400 – Food Service Equipment

Division 13 – Special Construction

Section 13121 – Metal Building Systems (Minor Requirements)

Section 13851 – Fire Detection and Alarm System

Section 13930 – Wet Pipe Sprinkler System, Fire Protection

Division 14 – Mechanical

Section 14240- Elevators, Hydraulic

Division 15 – Mechanical

Section 15569 – Water Heating, Gas and Propane Air Mixture

Section 15620 – Liquid Chillers

Section 15700 - Unitary Heating and Cooling Equipment

Section 15768 – Electric Unit Heaters

Section 15895 – Air Supply, Distribution, Ventilation and Exhaust System Custom Air Handling Equipment

Section 15940 – Overhead Vehicle Tailpipe Exhaust Removal System

Section 15950 – HVAC Testing/Adjusting/Balancing

Section 15951 – Direct Digital Control for HVAC

Division 16 – Electrical

Section 16415 – Electrical

Section 16528 – Exterior Lighting Including Security and Closed-Circuit TV (CCTV) Application

1.6.3 Critical Systems are outlined in an effort by the government to highlight those areas of the facility that are perceived as a high threat to the overall facility short and long term operations and/or overall the life cycle of the facility. As such, the contractor is encouraged to take extreme care in equipment selection, installation, and craftsmanship related to these items during construction as well as preventive maintenance during the 5 year maintenance pilot period.

1.6.4 The Contractor shall implement a Continuous Commissioning Program (CCP) that measures and compares the condition and performance of each of the critical systems against the condition and performance at the time of the BOD. The Contractor shall submit for the Contracting Officer's (CO) approval the conditions to be evaluated and the performance criteria to be measured 30 days after acceptance of the facility. Following agreement between the CO and the Contractor as the CCP parameters involved, no other conditions or criteria shall apply to the CCP. Upon acceptance of the facility the conditions and performance data shall be documented and will serve as the baseline criteria for future comparison.

1.6.5 Formal assessments will be conducted during the sixth month of the O&M phase of this contract, after the 10^{th} month, and thereafter annually.

1.6.6 As a part of the CCP, the Contractor shall take whatever actions are necessary to bring the critical systems back into the conditions and within the operating performance parameters that were identified in the baseline criteria. The Contractor shall be compensated for these actions including all necessary labor, materials and services according to the compensation provisions set forth in Section 9.

1.6.7 The CCP shall not be construed to be a substitute for PM and Unscheduled Maintenance specified elsewhere in the O&M Statement of Work.

1.7 Unscheduled Maintenance and General Services:

1.7.1. General. Unscheduled maintenance is corrective maintenance that involves repair or replacement for any building system or equipment. The Contractor shall be required to perform unscheduled maintenance within the site boundaries of the Rochester USARC. All unscheduled maintenance events will be carried out by the Contractor and documented in the FMS.

1.7.2. Cost. The cost for unscheduled maintenance includes all elements of expense to the Contractor including labor, materials, overhead, and profit to complete the specific maintenance event.

1.7.3. Service Orders. The Contractor will issue a Service Order (SO) to the government for all scheduled and unscheduled maintenance activities. The purpose of the SO's is to provide direct feedback and data for the FMS for future reference and to establish a baseline for follow-on maintenance at the conclusion of this pilot maintenance contract.

1.7.3.1 The Service Orders are to include the scope and expected time to complete the action, a schedule of cost to include labor categories and labor hours, and materials necessary to complete the work. Monthly management reports shall include the status of all SOs to include total expenditures and pending work.

1.7.4. Emergency or Urgent Requirements. Unscheduled maintenance requirements may be of an emergency, or urgent nature on critical and non-critical systems. Services may be required outside normal duty hours and must be performed immediately to prevent loss of life, injury, loss or damage to property, or serious damage. Emergency services may also be required to eliminate or deal with hazardous conditions such as floods or power outages and sub-freezing building temperatures.

1.7.4.1 The Contractor shall take the necessary actions to protect life, safety, health and property based on the following priorities:

Priority 1 – Emergency response is required to correct conditions that impact life, safety and health of personnel or destruction of Government property. The order is received during normal working hours and requires a response (minimally, acknowledgement with a tentative plan of action) within 30 minutes and continuous effort until completion.

Priority 2 **–** Emergency response is required to correct conditions that impact life, safety and health of personnel or destruction of Government property. The order is received after normal working hours and requires a response within 2 hours, and continuous effort until completion.

Priority 3 – Urgent response is required to correct conditions that do not constitute an emergency but are essential. Response is required with 8 working hours and will be completed within 5 working days or as agreed to by the COR.

Priority 4 – Routine response, as addressed in Section 1.7.3, is required to correct conditions that do not constitute an emergency or urgent need. Response is required within 5 working days and completed within 15 working days or as agreed to by the COR.

1.7.4.2. The Contractor shall respond as per the priority timing requirement when the Government or the Contractor identifies a requirement for unscheduled emergency or urgent or routine maintenance. Upon notification, the Contractor shall respond independently for priority 1, 2, 3 and 4 level responses. For all response levels, the Contractor will document a scope of work performed. Included as a part of this documentation the Contractor shall document the actual or expected time to complete the action, a schedule of cost to include labor categories and labor hours, and materials necessary to complete the work regardless of priority for SO preparation.

1.8 Alterations and New Construction:

1.8.1 The Government reserves the right to alter the buildings without affecting the intent of the work under this contract, to include Contractor and manufacturer warranties.

1.9 Hours of Operation:

1.9.1 Normal Hours. The Contractor shall perform routine repairs and maintenance between the hours of 0730 – 1600, Monday through Friday, except for observed federal holidays.

1.9.2 NOT USED.

1.9.3 Priority One Response. The Contractor shall respond to Priority One SO on a 24 hours per day, 7 days per week basis. The CFM or a designated alternate should be available during normal and non-duty hours to respond to emergencies as needed. The CFM and any resources that need to be dispatched as required to meet the situation shall answer the call. In accordance with the Staffing Plan, the Contractor shall provide the CO with the names and telephone numbers (home and cell phone) of the individual.

2. CONTRACTOR PERSONNEL QUALIFICATIONS, DUTIES, AND TRAINING:

2.1 Contractor Staffing. The Contractor shall provide the management needed to satisfy the specified O&M requirements. These requirements will vary during the contract execution period and the Contractor shall ensure that adequate manpower and expertise is made available to satisfy all the varying requirements of this work description. Contract craft persons, such as painters, carpenters, masons, sheet metal workers, electricians, and HVAC mechanics will be needed periodically for PM, unscheduled maintenance, and the continuous commissioning. The Contractor's plan for meeting the manpower requirements of the O&M period will be outlined in the Organizational and Staffing Plan (paragraph 5.4).

2.2 CFM:

2.2.1 The Contractor shall provide two employees who shall be responsible for the performance of the O&M work. One will be the CFM and the other as the alternate CFM. The name of the person and an alternate who shall act for the Contractor when the CFM is absent shall be designated in writing to the CO.

2.2.2 The Contractor, shall provide to the Government before commencing work, the names, addresses, business, home and/or cell phone numbers of the CFM and the alternate CFM.

2.2.3 The CFM and/or any alternative designated to act for the CFM, shall have full authority (through the contract execution period) to commit the Contractor to action on matters pertaining to Contractor's administration of this contract.

2.2.4 CFM will be given a space designated for the FMS. See Section 7.1.2.

2.3 Qualifications of the CFM:

2.3.1 Personnel designated as the CFM must have experience in operation and maintenance or closely related field, including the supervision of a subcontracted work-force responsible for

maintenance and repair of electrical, plumbing, mechanical, structural, heating, cooling, power generation and energy monitoring control systems.

2.3.2 The alternate CFM shall have comparable experience.

2.3.3 The CFM and alternate must be able to read, write, speak and understand English, fluently.

2.4 Duties of the CFM:

2.4.1 The CFM shall conduct overall management coordination and shall be the central point of contact with the CO or the COR for performance of all work under this contract.

2.4.2 Monitor systems performance against desired benchmarks and proactively identify corrective actions as required.

2.4.3 Maintain manuals and publications as part of a reference library and maintain maintenance records and files.

2.4.4 Operate designated terminals of the computerized FMS and input data into that system.

2.4.5 Prepare and submit to the CO the reports, records and service work orders as specified herein. In addition, an annual report is required of the Contractor to provide a formal assessment pertaining to this pilot O&M program. This report may include strong and weak points of the procedures and processes, lessons learned, cost efficiencies, suggested improvements, etc.

2.4.6 Implement subcontracts, if required, and maintain records of those subcontracts.

2.4.7 Provide training to successor Contractor and/or Government personnel on the O&M of the facilities and the facilities' systems/equipment.

2.4.8 The Contractor shall submit monthly reports that reports all activities completed for the preceding month and projected for the upcoming month. The following will be addressed at a minimum:

For the month completed:

- Operational Issues.
- PM completed.
- Continuous Commissioning of Critical Systems completed.
- Unscheduled Maintenance completed by task and service order including cost.
- Alterations and New Work completed including cost.
- Any changes to the CFM or supporting maintenance staff.
- DR issued.

For the month ahead:

- PM scheduled.
- Continuous Commissioning of Critical Systems scheduled.
- Any other issues that require Government action to assure efficient operation of the Rochester USARC and maintenance of the facility.

The report shall be presented written in an executive summary format and provided in three hard copies and one electronic copy three days prior to the scheduled monthly review.

2.5 Professional Qualifications. The Contractor shall ensure that employees and subcontractors have all applicable current and valid professional certifications (i.e. welding certificates, electrician licenses, etc.) before starting work.

2.6 Contract Maintenance Personnel. All planned contract/subcontractor maintenance personnel will have the same security and screening requirements as personnel employed directly by the Contractor. A plan with the following information shall be submitted to the CO: Full identification information for each individual and resumes of companies and personnel.

2.7 Approvals of Personnel. Employees of the Contractor/subcontractor shall be approved prior to occupancy of the facility.

2.7.1 The Government has the right to restrict the employment under the contract of any Contractor employee or prospective Contractor employee who is identified as a threat to the health, safety, security, general well being or operational mission of the installation and its population. No convicted felons will be allowed to work at the site.

2.7.2 The Contractor shall not employ any person who is an employee of the United States Government if the employment of that person would create a conflict of interest nor shall the Contractor employ any person who is an employee of the Department of the Army, either military or civilian, unless such person seeks and receives approval in accordance with Department of Defense (DoD) Directive 5500.7-R (Standards of Conduct).

2.7.3 The Contractor is cautioned that off duty active military personnel hired under this contract may be subject to permanent change of station (PCS), change in duty hours or deployment. Military reservists and National Guard members may be subject to recall to active duty. Their absence at any time shall not constitute an excuse for nonperformance under this contract.

2.8 Appearance of Personnel. Contractor personnel shall maintain a neat appearance and be easily recognized, e.g., uniform.

2.9 Personnel Identification. The Contractor shall furnish and wear identification badges displayed at all times with a current picture, company name, employee name and description. Badges shall be numbered consecutively and each badge shall be accounted for. A list of issued badge numbers and the corresponding names shall be submitted to the CO at contract start date and shall be updated as changes occur.

3. FACILITIES MANAGEMENT SYSTEM (FMS):

3.1 Software and Hardware requirements:

3.1.1 The Contractor's intended FMS software shall be nonproprietary and be submitted to the CO for joint review and Government approval prior to receipt of Notice to Proceed with this option. The Contractor shall purchase, install, and operate the FMS and RISER shall enter into the FMS all data required to establish records for the facilities, systems, and equipment. Some data will be available in electronic format. The Contractor will be supplied and responsible for RISER (RISER is a USAR facility management software / data system used to track various maintenance components) and maintain (update) that data throughout the duration of the O & M phase of the contract.

3.1.2 All computer hardware, software, historical data and systems under this section shall become the property of the Government at the conclusion of the contract period.

3.1.3 The Contractor shall protect the FMS data from loss and shall routinely back up all data to a storage medium protected against fire.

3.1.4 The Contractor shall not install any unauthorized copies of the FMS Software.

3.1.5 The Contractor may be required to house the FMS and CFM in the Contractor's construction trailer until the facility is ready for occupancy. Upon BOD, the FMS shall be relocated in the facility.

3.1.6 The Contractor will be trained in RISER by the Government and shall be required to track service orders.

3.2 Management Systems and Record Keeping:

3.2.1 Management of all PM shall be incorporated into the database, including all PM tasks with appropriate frequencies for each item listed in the Master Equipment List (MEL).

3.2.2 All management plans, schedules, reports and other data deriving from the development of the Management plan shall be developed and recorded in the database.

3.2.3 To enhance forecasting of requirements, all Unscheduled Maintenance, including proposal and service order management provisions, shall be incorporated into the database.

3.2.4 All basic accounting shall be performed in the system, e.g. budget vs. actual, purchase order tracking, etc.

3.2.5 All cumulative historical records shall be maintained in the system.

3.2.6 All parts, supplies, and inventories used for PM and Unscheduled Maintenance shall be included in the database so as to allow inventory accounting, forecasting, and procurement efficiency.

3.3 Maintaining the facility system/equipment operating logs. All critical and non-critical system data not readily captured and manipulated within the FMS computer program shall be maintained by a separate system by the Contractor for use in fulfillment of this contract.

3.4 Inspection Reports. Maintaining records of past and current building inspections for needed repairs of unscheduled maintenance to include:

- The dates of such inspections
- Results of inspections
- Corrections required
- Corrections made

If corrections have not been made, the file shall include

- A schedule for completion of required work
- A note explaining why corrections have not been made
- A backlog of unscheduled and unscheduled maintenance requirements.

3.5 Generation of standard FMS reports shall be provided upon request to the COR.

3.6 Records and Data - All records and data maintained in the FMS are the property of the Government and shall be made available to the COR upon request. A complete copy of all records and data shall be provided to the COR (in electronic format) upon completion or termination of this contract.

3.7 Contractor personnel who will operate the FMS shall have appropriate computer skills to operate the system. The Contractor shall assure that building occupants have access to the system for data query purposes only. The Contractor shall conduct training of key Government and Contractor personnel to assure proficiency in the FMS.

3.8 Equipment Maintenance and Operation. The Contractor shall provide routine maintenance and shall provide all manufacturer software upgrades as made available by the manufacturer for the duration of the contract and ensures data integrity after upgrade is made. If FMS equipment is damaged by Contractor abuse or misuse, the Contractor shall be responsible for the resulting repair and/or replacement costs. The Contractor shall operate the system in accordance with the manufacturer's instructions and shall make data backups to assure continuing operations. The failure of the computer system shall not be a basis for work stoppages or claims by the Contractor.

4. SYSTEMS OPERATION AND MAINTENANCE MANUALS (SOMM):

4.1 Using the Management Plan and System Operation and Maintenance Manual (MP & SOMM) Templates as a guide, the Contractor shall prepare the final SOMM. See Exhibit SOW-2 for the format of the SOMM.

4.2 The SOMM shall be organized by building systems as defined in Exhibit SOW-3, Index of Volumes.

4.3 The Contractor shall organize each volume's contents using the O&M SOW for guidance. The Contractor shall revise all volumes, sections, chapters, etc. to provide a comprehensive and up-to-date manual incorporating as-built conditions, as-maintained and current manufacturer's data.

4.4 Each volume is designed to 'stand alone' – providing sufficient guidance and supporting material to allow a properly trained, journeyman technician to perform proper services.

4.5 Preparation of the SOMM shall be under the direction of an individual or organization that has demonstrated expertise in the preparation of comprehensive and complete O&M instructions for similarly complex systems. The final SOMM shall be submitted for CO review and approval.

4.6 The Government-approved SOMM shall be in place no later than 30 days prior to building commissioning.

4.7 One (1) copy of the Comprehensive Facilities MP shall be in editable Microsoft Word format & the SOMM will be furnished on electronic media in a searchable .pdf format, and four (4) hard copies will be delivered.

5. COMPREHENSIVE FACILITY MANAGEMENT PLAN FOR END USER:

5.1 General. The Contractor shall prepare a CFMP that integrates all the management activities required for the O&M phase of the contract.

5.2. Submittal. The CFMP shall be submitted in conjunction with the SOMM, in accordance with submittal requirements of the Construction contract.

5.3 Minimum Requirements. The following are the minimum components of the comprehensive management plan:

5.3.1 Organization and Staffing Plan

5.3.2 Security Plan

5.3.3 Safety Program Plan

5.3.4 Training Plan

5.3.5 Warranty Plan

5.3.6 Contract Maintenance Plan

5.3.7 Continuous Commissioning Plan

5.3.8 Preventive Maintenance Plan

5.3.9 Quality Control (QC) Plan

5.4 Organization and Staffing Plan:

5.4.1 The Contractor shall prepare and maintain a written, current organizational plan. The plan shall indicate all categories of personnel employed by the Contractor and subcontractors as listed by system and the reporting relationships established therein.

5.4.2 This plan shall be posted in an accessible location in the Government furnished space provided to the Contractor.

5.4.3 The manpower and staff needed to satisfy the specified O&M requirements will vary during the contract execution period. The Contractor shall employ adequate manpower in order to satisfy all requirements of this work description. Craft persons, such as painters, carpenters, masons, and sheet metal workers, will be needed periodically for unscheduled maintenance.

5.5 Security Plan:

5.5.1 The Contractor shall develop and submit to the CO for review, a comprehensive Security Plan based on the Department of Defense Industrial Security Program (reference DOD 5220.22-R).

5.5.2 Security and fire alarm for Rochester USARC is monitored by a centralized security system monitored by Fort McCoy, Wisconsin. The Government Security Manager and Safety Officer will screen and train personnel to familiarize them with the Security Control Operations.

5.5.3 The Contractor shall be responsible for safeguarding all Government property provided for Contractor use.

5.5.4 NOT USED.

5.5.5 Key Control.

5.5.5.1 The CFM shall maintain key control of keys issued to the Contractor work force.

5.5.5.2 The Contractor shall establish and implement methods of ensuring that all keys issued to the Contractor by the Government are not lost or misplaced and are not used by unauthorized persons. No keys issued the Contractor by the Government shall be duplicated.

5.5.5.3 The Contractor shall immediately report the occurrences of a lost or duplicated key to the CO and the Government Security Manager and Safety Officer.

5.5.5.4 In the event keys, other than master keys, are lost or duplicated, the Contractor shall be required, upon direction of the CO, to re-key or replace the affected lock or locks. The Contractor, at its option, may replace the affected lock or locks or perform re-keying at no cost to the Government. In the event a master key is lost or duplicated, the Government shall replace all locks and keys for that system, and new keys issued to the Contractor. The total replacement cost shall be deducted from the monthly payment due to the Contractor.

5.5.5.5 The Contractor shall prohibit the use of keys issued by the Government by any persons other than the Contractor's employees engaged in the performance of assigned work. The Contractor shall prohibit the opening of locked areas by the Contractor's employees to permit entrance of persons other than the Contractor's employees engaged in the performance of assigned work in those areas.

5.5.5.6 The Contractor shall establish and implement methods of ensuring that all lock combinations are not revealed to unauthorized persons. These procedures shall be included in the Contractor’s Security Plan.

5.5.5.7 The Contractor will not be allocated any keys to the facility exterior entrances. The Contractor must coordinate with the building personnel for access to the facility or any secured

room or area. Once duties are complete, the Contractor shall ensure the space is secure and notify building owner they have completed the work within the secured area.

5.6 Safety Program Plan:

5.6.1 The Contractor shall develop and submit to the CO for review and approval a comprehensive safety program describing procedures and plans for preventing accidents and for preserving the life and health of Contractor and Government personnel in any way involved with the performance of this contract. The safety program, upon beneficial occupancy, shall comply with regulations as specified by the Occupational Safety and Health Administration (OSHA).

5.6.2 The safety program section of the management plan shall, as a minimum, address responsibilities and procedures that all Contractor personnel must follow. The safety program shall address, as a minimum:

5.6.2.1 Fire safety (hazard prevention, reporting, evacuation layouts, and extinguishers)

5.6.2.2 Maintenance shop safety (protective clothing, protective equipment, storage of oils and lubricants, disposal of waste and contaminated oil, and use of acetylene torches, electric welders, and power equipment)

5.6.2.3 All other devices and procedures necessary to protect the employee and occupants.

5.6.3 The Contractor shall ensure that all employees and occupants know, receive instruction on, and comply with all appropriate safety requirements.

5.6.4 The Contractor shall prepare a plan to ensure that all hazardous material/waste used or generated by any Contractor personnel is properly inventoried, stored, handled, packaged, and disposed of in an appropriate manner. The Contractor's planned procedures for hazardous material and waste disposal shall be submitted to the CO for review and approval 10 days prior to the assumption of the maintenance mission. The Contractor's responsibilities include:

5.6.4.1 Inspecting all shops, maintenance facilities, storage areas, and other facilities under Contractor control where hazardous substances, materials, and/or wastes are either generated or stored, thereby ensuring adequate handling, generation, and storage procedures and identifying any violations of the fire code ,National Fire Protection Association (NFPA), (NFPA 30, Flammable and Combustible Liquid) hazardous material/waste laws and/or regulations.

5.6.4.2 Recording all violations and corrective actions taken; transporting, storing, and handling hazardous substances in a safe and environmentally acceptable manner; and instituting a responsive alert and reporting procedure for use when a spill occurs.

5.6.4.3 Cooperating with Government agencies in order to ensure that the public health and welfare is adequately protected from discharge of oils and hazardous materials/waste.

5.6.4.4 The general guidance for disposal of waste is as follows:

Hazardous waste – Turned in to the installation designated points of reception.

Non-hazardous waste – Properly placed in the dumpster provided.

5.7 Training Plan. The Contractor shall develop a written Training Plan for approval of the CO 60 days prior to acceptance of the facility. Training Plan shall include lesson plans/lesson outlines, expected duration of each session, who will receive the training, and frequency of instruction if training is of a recurring nature or identified as refresher training. The following types of training shall be provided to all Contractor O&M personnel performing under this contract. The O&M maintenance supervisor or his alternate shall be present for all training sessions with the building operating staff for the equipment being installed by the general contractor.

5.7.1 Orientation. The Contractor shall provide sufficient training for all employees performing duties under this contract. The training shall be provided as soon as practical after employees begin work. As a minimum, however, the initial orientation training shall be completed prior to the date an employee begins work. Orientation training shall include the following topics:

- Appropriate interactions with staff.
- Familiarization with applicable local base regulations and policies (including fire prevention, ground safety, and natural disaster plan).
- Familiarization with technical manuals.
- The duties of each employee.
- The proper collection, handling, storage, transportation, and disposal of Contractor-generated waste.
- Employee personal hygiene and appearance (Proper dress and work attire).
- Adherence to work schedules.
- Documentation or completion of scheduled work assignments.
- Safety orientation briefing

5.8 Warranty Plan:

5.8.1 Warranty plan identifies any existing and/or replacement equipment warranties, specifying the vendor offering the warranty, the length of the warranty and any special O&M requirements that must be met in order to preserve the warranty.

5.8.2 A schedule shall be prepared for each system and summarized in a comprehensive schedule and located in the Comprehensive Management Plan Volume.

5.8.3 All maintenance work during the first year shall be done by or coordinated with the Contractor and manufacturer holding the warranty. The personnel shall meet the minimum service requirements and/or certifications recommended for that system or piece of equipment.

5.8.4 Any warranties that have effective durations that extend beyond the combination of the construction period and the period of O&M shall be accrued to the Government.

5.9 Sub-Contract Maintenance Plan:

5.9.1 The sub-contract maintenance plan outlines procedures and methodologies for accomplishing the maintenance of various systems and items of equipment by maintenance contracts.

5.9.2 The sub-contract maintenance plan also includes technical specifications/statements of work for those systems and equipment to be maintained by the Contractor, and a detailed cost estimate for the work described in the technical specifications.

5.9.3 If required, just-in-time or on-call contracting methods may be utilized with respect to complex systems and equipment that require special skills or certifications to maintain i.e. (paved areas, fire alarm systems, etc.).

5.10 Anti-Terrorism Force Protection:

5.10.1 The Contractor shall become familiar with and follow all requirements of the Department of Defense Minimum Antiterrorism Standards for Buildings while at the facility.

5.10.2 At no time shall exterior equipment have panels or louvers removed and left without personnel working on the unit so that something could be hidden out of view inside the equipment.

5.10.3 At no time shall trash containers be moved closer to the building than 10M.

5.10.4 At no time shall locked exterior doors be held open, while personnel are not present.

5.10.5 Parking of contractor vehicles shall only be in the designated parking area, contractor shall not leave any vehicles unattended out of parking area.

5.11 Preventive Maintenance Plan:

5.11.1 The Preventive Maintenance Plan (PMP) identifies the various types/levels of preventive maintenance that will be accomplished by the maintenance staff. The plan must reflect response times/categories for the various items of equipment and identify a generic procedure for the management of service orders.

5.11.2 The PMP shall identify the PM tasks and frequencies for each item listed in the Master Equipment List (MEL). This plan also identifies the skills (trades) required and man-hour estimates for performing the PM tasks.

5.11.3 Facility Systems/Equipment Assessments requirements shall be incorporated within the PMP. These shall include at a minimum:

5.11.4 Life Safety Assessments and Tabulation - This assessment identifies life safety/fire protection code issues and stipulates corrective actions needed to meet NFPA where applicable.

5.11.5 Continuous assessments will be used to compare actual building systems performance against design parameters.

5.11.6 O&M Equipment Operational Assessment - This assessment identifies systems and equipment issues, identifies corrective actions (replacement, upgrade, or renovation), and provides cost estimates.

5.11.7 The Contractor shall prepare, submit and comply with a written yearly master PM schedule. The Contractor shall research equipment manufacturer's and industry

recommendations for preventive maintenance requirements and ensure these requirements are included in the Master PM Schedule.

5.12 Quality Control Plan:

5.12.1 The Contractor shall establish and maintain a complete QC Plan to ensure the requirements of the contract are provided as specified. The QC Plan shall outline the process that the Contractor will use to manage the level of performance.

5.12.2 The QC Plan shall include an inspection system covering all the services listed on the O&M SOW. It must specify the areas to be inspected, and the individual(s) who will perform the inspection.

5.12.3 System performance benchmarking shall define methods for identifying and preventing deficiencies in the quality of service before the level of performance becomes unacceptable.

5.12.4 The Contractor shall review systems performance annually by analyzing on-site records of all inspections conducted by the Contractor and necessary corrective action taken. This documentation shall be made available to the COR during the term of the contract and used to benchmark the productivity of the maintenance effort.

6. O&M SUCCESSOR:

6.1 The last three months of the contract execution period shall be used for an orderly transition of responsibility to the successor that will execute the follow-on O&M program.

6.1.1 An initial meeting between the COR and the CFM for both outgoing and incoming Contractors, shall be held to address phase-out requirements and responsibilities no later than three to six months prior to the end of the current O&M phase. Subsequent meetings will be held as determined by the CO, but not less than weekly thereafter.

6.1.2 When the incumbent Contractor is also the successor Contractor, these required meetings shall not be waived; since orderly transition from one work specification to another will also require significant management involvement in the transition process.

6.1.3 The successor Contractor shall perform all start-up procedures.

6.1.4 The successor for the follow-on O&M program may be Government personnel.

6.1.5 All documents, hardcopy or electronic generated in performing this O&M work become the property of the government upon their creation. Access of such documents to successor bidders shall be made by the contractor at the times in the methods and manners chosen by the Contracting Officer.

6.2. During the final three months of this contract, if the incumbent Contractor is not awarded the subsequent contract, the Contractor shall permit his successor and the successor's key personnel to observe and become familiar with any and all operations under this contract.

6.3 Successor Training:

6.3.1 The Contractor shall schedule and provide training for the new personnel that will be assuming the operation and maintenance of the facility. All training will be videotaped by the Contractor giving the training.

6.3.2 The Contractor shall provide on-the-job training (OJT) to each of the O&M successor personnel to ensure sufficient familiarity to take over the O&M responsibilities.

6.3.3 The training objective is to enhance technical skills so that transfer of O&M responsibility for Rochester USARC's unique systems/equipment will be efficient.

6.3.4 Verification of training shall be provided to the CO within 3 days after the completion of training. Verification shall include information such as name of craftsperson trained, system trained on, type of training, number of hours trained, etc.

6.3.5 Training shall cover features unique to complex electrical and mechanical systems installed at Rochester USARC and FMS features such as hardware and software.

7. GOVERNMENT PROVIDED FACILITIES AND SERVICES. The Government shall provide without cost to the Contractor, during the performance of the O&M portion of the contract, the facilities and services listed below:

7.1 **Government-Furnished Facilities.** Maintenance support space furnished to the Contractor by the Government shall be in the following designated areas:

7.1.2 The Government shall furnish the Contractor with a designated area for office, equipment and storage. (ROOM 115 for office, 215 for storage and cage area 9' x 12' area)

7.1.3 The Government shall provide office furnishings (desk, chair, file storage, etc). All other Contractor supplied furnishings and shop equipment (except specialized equipment necessary for the operation of the facility) will remain the property of the Contractor at the expiration or termination of this contract. All storage bins and cabinets with the minimum emergency stock of replacement equipment, supplies and spare parts inventory, to last one year, shall become the property of the Government at the conclusion of this contract.

7.2 Government-Furnished Services:

7.2.1 The Government will provide to the Contractor all water, sewage, custodial, electrical and data services required for the performance of this contract.

7.2.2 Commercial telephone service acquired by the Contractor for Contractor use shall be paid for by the Contractor.

7.2.3 Failure of the Government to furnish utilities at any time during the performance of the contract because of outages or other interruptions in service shall not be considered by the Contractor as a basis for a claim against the Government.

8. GOVERNMENT QUALITY ASSURANCE (QA):

8.1 The Government will evaluate the Contractor's performance under this contract in accordance with the Federal Acquisition Regulation (FAR) Inspection of Services clause.

8.2 The Government will record all surveillance observations and inspection results. When an observation or inspection indicates deficient performance, the COR will prepare a Deficiency Report (DR).

8.3 The Contractor will accompany the Government and User on walk-through inspections of Rochester USARC. The Contractor will document all observations and prepare a final report of the observations organized by facility system. This report will be provided to the CO in three hard copies and one electronic copy within 10 days after completion of the walk-through.

8.3 Deficiency Reports:

8.3.1 If the Contractor's performance is found to be unsatisfactory and not in compliance with the requirements specified in this contract, the Government will issue a DR within 3 days.

8.3.2 Upon presentation of a DR by the Government, the Contractor shall immediately sign the DR, acknowledging its receipt. Within 3 working days of receipt of a DR, the Contractor shall explain in writing to the Government either:

- How performance does conform to the requirements of the contract;
- How performance will be returned to conformity;
- How reoccurrence of the problem will be prevented in the future.

8.4 Meetings:

8.4.1 The CFM will be required to attend Monthly reviews with the COR and User.

8.4.2 Additionally, the Contractor will also be required to attend the Monthly review meetings until the COR deems that satisfactory performance of the O&M phase of the contract and full and acceptable implementation is achieved.

8.4.3 The CO may require additional meetings whenever a DR is issued.

8.4.4 The minutes of all meetings will be prepared by the Contractor and shall be signed by the CFM, COR, and the CO if in attendance.

9. CONTRACTOR CLEAN-UP:

9.1 The Contractor shall, at all times, keep the work areas free from accumulation of waste material, rubbish, tools, scaffolding, equipment, and materials. Upon completion of the task, or nightly, the Contractor shall leave the work area and premises in a clean, neat, safe and workmanlike condition. The Contractor is responsible for disposing of both hazardous and non-hazardous job-related waste material off government property in accordance with all local, state and federal regulations, at no additional cost to the government. Waste materials shall be disposed of on at least a weekly basis.

10. SUBMITTALS/GOVERNMENT APPROVALS:

10.1 The following items shall be submitted for Government approval:

- Mechanical/electrical layout drawings
- Systems Operation and Maintenance Manuals (SOMM)
- As-built drawings
- 1354 data and installed equipment lists
- Testing and air balance (TAB)
- TAB specialist design review report
- Fire protection specialist
- Testing and balancing of HVAC plus commissioning plans and data.
- Air and water balance dates
- HVAC commissioning dates
- Controls testing plan
- Controls testing
- Performance Verification testing
- Other systems testing, if required
- Prefinal inspection
- Correction of punchlist from prefinal inspection
- Final inspection

Exhibit SOW-1

Definitions and Abbreviations

A.....Advisory
ADP.....Automated Data Processing
AHU.....Air Handling Unit
ASHRAE.....American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME.....American Society of Mechanical Engineers
BAS .....Building Automation System
BOD.....Beneficial Occupancy Date
CADD .....Computer-Aided Drafting and Design
CCP.....Continuous Commissioning Program
CCTV.....Closed-Circuit TV
CFM .....Contract Facility Manager
CFMP.....Comprehensive Facilities Management Plan
CFR.....Code of Federal Regulations
CLIN .....Contract Line Item Numbers
CO.....Contracting Officer
COR .....Contracting Officer's Representatives
DoD.....Department of Defense
DR .....Deficiency Report
FAR.....Federal Acquisition Regulation
FMS.....Facilities Management System
FTE……..Full-Time Employees
HVAC .....Heating, Ventilation, and Air Conditioning
IAW.....In accordance with
LAN .....Local Area Network
M.....Mandatory
MP&SOMM ..Management Plan & Systems Operation Maintenance Manual
MEL .....Master Equipment List
MEP……Military Equipment Parking
NFPA .....National Fire Protection Association
NTP .....Notice to Proceed
O&M .....Operation and Maintenance
O&M SOW....Operation and Maintenance Statement of Work
OJT…….On-the-Job Training
OMS…….. Organizational Maintenance Shop
OSHA.....Occupational Safety and Health Administration
PCS.....Permanent Change of Station
PE.....Professional Engineer
PL.....Public Law
PM.....Preventive Maintenance
PMP……Preventive Maintenance Plan
QA.....Quality Assurance
QAR .....Quality Assurance Representative

QC.....Quality Control
SO.....Service Order
SOMM .....System Operation and Maintenance Manual
SOW……...Statement Of Work
SSMRS……Standing-Seam Metal Roofing System
TA .....Trouble Analysis
USARC……...United States Army Reserve Center
WO.....Work Order

Beneficial Occupancy Date (BOD)

Date of final acceptance of facility by the Government.

Breakdown

The stoppage or collapse of equipment or a facility, or a component thereof, that requires corrective action to restore to an operation condition.

Building Exterior

The exterior surface of a building, including all walks, roofs, attached patios, overhangs, and entranceways.

Deficiency Report (DR)

Formal, written documentation of Contractor non-performance or lack of performance for contract work.

Contracting Officer (CO).

A person duly appointed with the authority to enter into and administer contracts on behalf of the Government.

Contracting Officer Representative (COR).

An individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the Contracting Officer to perform specific technical or administrative functions.

Defective Service

Poor performance or nonperformance as specified by Contractor requirements.

End Item

The individual component part listed in the manufacturer's parts listing. End item, component part, and /or individual item are used interchangeably.

Government Property

All property owned or leased to the Government or acquired by the Government under terms of the contract. Government property includes

Both Government furnished property and Contractor acquired property as defined in FAR 45.101.

Government Property Administrator

An authorized representative of the Contracting Officer appointed in writing to administer contract requirements and obligations relative to Government property (FAR 45.101.)

Maintenance Backlog

Equipment repair that has not been completed in the specified time.

Maintenance

The routine recurring work required to keep the facility and its systems in such a condition that it can be used continuously at its designated capacity and efficiency.

Mandatory (M) Documents

Directives with which the Contractor is obliged to comply.

Materials

Materials, parts, and supplies necessary for the maintenance and repair of facilities and equipment.

National Fire Protection Association (NFPA)

An organization that published pamphlets on fire protection and safety, which are accepted by local, State and Federal Governments and considered directive in nature for this statement of work.

O&M Equipment and Facilities

Equipment and construction normally used to maintain general building environment and services (heating, ventilating, and air-conditioning (HVAC); electrical distribution systems; lighting; plumbing; building hardware and furnishings; etc.), except those items intended to perform a specific function not related to maintaining the building environment.

Preventive Maintenance (PM)

The systematic planned care, servicing, and inspection of equipment, utility plants and systems, buildings and structures, and ground facilities for the purpose of detecting and correcting incipient failures, preventing failures, and making minor repairs. Manufacturer's product literature/data sheets are to be used as principal guidance for determining minimal/recommended periodic maintenance missions.

Quality Assurance (QA)

Those actions taken by the Government to assure services meet the requirements of the Statement of Work (SOW) and all other service outputs.

Quality Assurance Review

Periodic examinations to ensure compliance with the Contractor's procedures, plans, schedules, and contract requirements (includes the recording of narrative audit results).

Quality Assurance Representative

A Government person responsible for surveillance of Contractor performance.

Quality Assurance Surveillance Plan (QASP)

An organized written document used for quality assurance surveillance. The document contains specific methods to perform surveillance of the Contractor.

Quality Control

Those actions taken by a Contractor to control the performance of services so that they meet the requirements of the SOW.

Random Sampling

A sampling method in which each service output in a lot has an equal chance of being selected.

Repair

The restoration of a real property asset to its originally constructed or installed condition, or if that restoration is not practical, to a condition that satisfactorily meets the intended purpose. Repair means the application of maintenance services in order to restore

serviceability of an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

Sample

A sample consists of one or more service outputs drawn from a lot. The number of outputs in the sample is the sample size.

Sampling Guide

The part of the surveillance plan, which contains all the information, needed to perform surveillance of the service output(s) by the random sampling method of surveillance.

Scheduled Maintenance

Systematic and periodic servicing and inspection of equipment and components to maintain operational efficiency and replace worn or failed parts.

Service Order (SO)

Used to authorize and manage scheduled and unscheduled repair jobs.

Shall

This word is used in conjunction with the contract and specifies that a provision is binding.

Unscheduled Maintenance

Corrective Maintenance that involves repair or replacement for any building system or equipment not included in the Continuous Commissioning Program.

Work Order (WO)

Used to authorize and manage new construction or modification jobs.

Will.

This word is used to express a declaration of purpose on the part of the Government.

Exhibit SOW–2
Organization of SOMM

General Information

1. The following paragraphs provide guidance for the overall intent and structure for completion of a Systems Operation Maintenance Manual.

2. It is the intent that the Contractor will continuously build a SOMM. As a pilot operational program, it is understood that standard industry formats can be substituted, provided the parties intent to compile all such data in a useable manner.

3. It is the intent that the SOMM should complement the FMS and be jointly used in this operation. Redundancy of requirements shall revert to the FMS system.

4. Where possible a standardized industry format may be substituted.

5. A standardized form format should be followed which makes it easy to review.

6. It is not the intent to duplicate operations and/or data retention. Where possible, all data should be consolidated for ease of use, updates and retrieval.

SOMM sections include:

A. Specific System Description

1. This section identifies examples of building systems and/or major subsystems that comprise the critical functional areas of the building infrastructure.

2. For systems consisting of more than one unit or item of equipment, or where complexity must be explained, an illustration or flow diagram may be included. If one system interfaces with another system or subsystem, this section shall define how they interface.

3. Safety and security topics shall be covered and referenced to the operating procedures, if applicable.

4. A table of capabilities and limitations shall be prepared for the systems, if applicable. The table will include data such as gallons per minute, transfers per hour, boom capacity, rated ranges, resolution, accuracy, data-handling capability, etc. Additional tables shall be provided as needed to clearly illustrate the capabilities required of a given system or item of equipment that differ because of its configuration within the system. The word "differ", as used above, refers to capabilities other than normal or standard. The fact that the input, output, feedback, or control levels required are within the design specifications of the system or item of equipment is not a sufficient reason for omitting the system or item of equipment from the table.

5. Major equipment components shall be identified and located by describing each component that is significant to O&M, logistics, and safety.

B. Theory of Operation

1. This section addresses how the specific systems and/or major subsystems function to meet the design specifications..

2. The final manual shall contain a brief discussion of the theory of operation and a listing of all the functions of the system and shall show how the various facility subsystem

functions are tied together to accomplish the overall system function. The description shall include an overall analysis of the principles of operation of the system equipment and its functions, such as control interlocks, where such principles would not be obvious to a journeyman technician. Particular attention shall be paid to the interface between facility systems and other systems. The descriptions shall be sufficiently detailed to provide O&M personnel with the understanding necessary to adequately perform the system activities and to correctly interpret the results of these activities.

3. An introduction to each specific system has been made by the design team with pertinent data given for the Contractor's use.

C. Operations

1. The final manual shall include equipment and/or system layouts as required for clarity. Information to be provided or identified for reference, includes all piping, wiring, breakers, valves, dampers, controls, etc., complete with functional diagrams, schematics, isometrics, and data to explain the detailed operation and control of each individual piece of equipment and/or system components.

2. Layouts should show the location within the facility of controls, valves, switches, dampers, etc., by reference to site location, wing designation, floor, room number, or other clear and concise directions for locating the item.

3. Operator data may be identical to posted data and framed instructions, and may be included as part of the O&M manuals. The instructions will include:

a. Initial adjustments and control settings.

b. Precautions and pre-checks to be executed prior to startup of equipment and/or system, including safety devices, monitoring devices, and control sequence.

c. Step-by-step sequential procedures for startup and normal operation checks for optimal performance. Safety precautions and instructions that should be incorporated into the operating instructions and flagged for the attention of the operator. Procedures shall include test, normal, and automatic modes.

d. Procedures for normal and emergency shutdown of equipment and/or systems. The instructions shall include any procedures necessary for placing the equipment and/or system on standby or preparing the equipment and/or system for startup at a later time. Procedures shall include test, normal, and automatic modes.

e. Procedures for isolating individual equipment from the system and bringing individual equipment online once the system is operating.

f. Operational logs and records requirements.

D. Preventative Maintenance

1. Recommended procedures shall indicate preventative maintenance (i.e. lubrications, checks, adjustments, etc.) and good housekeeping practices which should be performed by operating personnel.

2. More complex maintenance procedures that would normally be performed only by trained maintenance personnel; will also be provided.

3. Schedules indicating timeframes or operating hours for initiating operator maintenance and adjustments and including manufacturer's recommended major maintenance requirements will be provided.

4. Safety precautions and instructions that should be followed during these procedures shall be incorporated into the maintenance procedures and flagged for the attention of personnel.

5. The procedures shall include necessary operating instructions for taking equipment offline, online, and putting equipment on standby.

6. The instructions shall address all material, equipment, and system data needed to perform maintenance work and shall include, but not be limited to the following: (as applicable)

a. Manufacturers' bulletins, catalogs, and descriptive data.

b. Certified performance curves.

c. Copies of approved test plans, including logs and records of performance acceptance test results and actual adjustments made during final acceptance and inspections.

d. System layouts, including block, wiring, control, and isometric diagrams.

e. Schematic items within the facility.

f. Interrelationships with other items of the system.

7. Emergency adjustments shall be included and flagged for the operator's attention

a. The instructions shall also include procedures for emergency repairs that could be performed by operating personnel.

E. Trouble Analysis (TA)

1. Trouble Analysis procedures for locating and correcting trouble shall be presented in a step-by-step format.

2. Repair procedures may be keyed to a troubleshooting guide outlined as shown in three columns with the following headings:

Trouble/Symptom	**Probable Cause(s)**	**Corrective Action**
The indication or symptom of trouble	The instructions, including test hookups, necessary to determine the cause(s)	Procedures for restoring the system to operating condition, or cross reference to where the procedure is written in SOMM

3. Information may also be in logic tree form, or in another clear tabular format with appropriate headings.

4. Trouble analysis shall be documented to the extent necessary to locate the faulty piece of equipment within the system.

5. The procedures shall clearly indicate a major repair activity, which should be performed only in a shop or factory, as opposed to normal repair work, which may be performed onsite or with equipment online.

6. The procedures shall also clearly indicate the limit of repair work that may be performed by Government personnel during the warranty period without voiding the warranty provisions.

7. Safety precautions and instructions that should be followed during these procedures shall be incorporated into the repair documentation and flagged for the attention of personnel.

8. The Trouble Analysis section shall be cross-referenced to the appropriate Exhibits and other documents in the MP&SOMM.

F. Unscheduled Maintenance

1. Cross Referenced to Trouble Analysis and to applicable Exhibits, this section provides documentation on the procedures for isolation, replacement, checkout, and integration of the equipment within the system shall be provided.

2. Test, adjustment, and checkout data, required after replacement will be included.

G. Repair Parts and Special Tools and Equipment

1. Repair Parts

a. The Contractor is to identify and provide all required repair parts. Just in time delivery shall be used where possible. Repair parts shall be stored on site, in designated areas, as defined in the O&M SOW.

b. A complete list of repair parts and supplies shall be maintained. The list shall include all parts and components of individual pieces of equipment and all parts and components of each system and shall identify such items as nomenclature of part, model number, circuit or component identification, etc., as applicable.

c. Parts and supplies lists shall be included within each volume of maintenance instructions.

d. A master list of repair parts and supplies recommended and or required by contract, from each manufacturer for one year of operation, including source of supply, shall be listed with each instruction.

e. The Contractor shall list the sources of supply for all parts and supplies, including name of supplier/manufacturer, address, and telephone number.

f. If the parts and suppliers are not normally stocked locally, necessary procurement lead-time shall also be a part of the listing.

H. Vendor Data and Acceptance Tests

1. Vendor Data

a. A complete set of data, provided by the equipment manufacturer, required for operation, maintenance and checkout will be included and referenced to the appropriate specification's number.

b. Data may consist of manufacturer's brochures, O&M manuals, catalogs, drawings, service bulletins, and illustrated parts lists necessary to support the O&M of the end item of equipment and assemblies. This reprinted data shall be edited as necessary to make material project specific.

2. Acceptance Tests

a. A record of all System's Acceptance Tests shall be included in this section.

b. Any pertinent information relating to problems during testing shall be noted.

I. Special Tools and Equipment List

1. The Contractor is to identify and provide all special tools and test equipment.

2. A list of all special tools and test, diagnostic measurement, and equipment for system level maintenance in this appendix.

3. For the purpose of this specification, the phrase "special tools and test, measurement, and diagnostic equipment" is used to identify all nonstandard tools and equipment designed and developed by the manufacturer and others to perform maintenance, test/calibration, diagnostic/prognostic analysis, and other acceptance testing, and successful O&M.

4. Frequency and method of calibration shall be indicated for all special tools, equipment, and test equipment items that require calibration. Necessary standards shall be listed immediately after each item that requires calibration.

J. Warranty Information

1. The Contractor shall incorporate warranty information for each system as identified.

2. In addition to the general warranty required by the contract, the Systems Operation and Maintenance Manual shall include any specific warranties required by other sections of the Technical Specifications and other warranties normally provided with the particular piece of equipment or system.

3. Warranties that are normally provided by manufacturers and which are beyond the warranty for construction shall be specifically noted.

4. A summary of all warranties shall be available either in the FMS or the SOMM, and include, but not be limited to the following information:

a. Specification Section

b. System identification

c. Subsystem or equipment identification

d. Term of warranty

e. Anticipated warranty inspection date with room for actual date.

f. Problems during the warranty period. Latent defects if they present themselves.

g. Copy of warranty or warranty data in the absence of an explicit warranty.

5. A master list of all warranties shall be included as defined under the O&M SOW.

K. Master Equipment List

1. The MEL identifies each major system, subsystem, and equipment item in generation breakdown order to the purchase end item level. The completed MEL shall contain as a minimum the following information:

a. Item nomenclature

b. Functional characteristics

c. Item identifier (tag number)

d. Specification number

e. Design/construction drawing number. (File number when available)

f. Manufacturer's name

g. Manufacturer's part number

h. Manufacturer's model/serial number

i. Location Plan

j. Current Warranty Status

2. The Contractor shall develop a projected and as-built Master Equipment List. Refer to Submittal Requirements of the Management Plan & Systems Operation and Maintenance Manual.

3. The Contractor shall develop and maintain a master O&M manual list identifying all of the equipment for which O&M manuals will be furnished under this contract.

4. Following setup of the O&M manual list, this master listing shall be updated monthly to reflect equipment additions, deletions, changes and alterations.

5. The submittals shall be arranged in alphabetical order according to the type of equipment covered and by manufacturer's equipment noun name; and shall be cross-referenced to the systems involved. Each data submittal shall be dated and shall show the target or actual submittal date for O&M manuals for each item of equipment. For identical pieces of equipment within one system, only one set of O&M data for that equipment item will be required.

6. The Contracting Officer and Contractor will work together to determine whether the above specified information as furnished by the Contractor is adequate and complete and to require such additional submittals by the Contractor as may be necessary to insure that adequate information has been furnished to provide the satisfactory operation and maintenance of the various items of equipment and fulfill the intent of the specifications.

7. Additional submittals or re-submittals supplementing incorrect or incomplete data shall be made within 30 calendar days after receiving notice by the Contracting Officer. All cost arising from these resubmissions shall be borne by the Contractor.

8. All system MELs will be incorporated by system and combined into a comprehensive list to be included in Volume 1, Comprehensive Management Plan of Appendix A - MP&SOMM.

9. Posted Data

a. The Contractor shall post data for equipment or systems, in addition to O&M manuals, and as required by other Technical Specifications sections.

b. The data shall consist of as-built schematics of all wiring, controls, piping, etc., as necessary for the operation of the equipment or system, and a condensed typewritten description of the system. The data may include approved shop drawings, layout drawings, riser, and block diagrams and shall indicate all necessary interrelation with other equipment and systems.

c. The data shall be presented in appropriate sized drawing sheets sealed with clear plastic laminate, collated and bound for clarity and convenience of locations. The framed data presentation and outline shall be acceptable to and provided at locations designated by the Contracting Officer.

10. Instructions may be presented in one or several binders for clarity and convenience of location. The instruction presentation and outline shall be acceptable to the Contracting Officer prior to posting, and shall be provided at locations designated by the Contracting Officer.

L. Training Requirements

1. The Contractor is required to present a training plan for approval. Four (4) copies of the training plans for all required formal training shall be submitted to the Contracting Officer in draft form in one submittal. The Contractor shall provide training, printed instruction material, and training aids, in accordance with the approved plan.

2. The training plan will identify the number of man-hours of instruction required for each system following the guidelines listed in the MP&SOMM templates. The training plan will also specify the proportions of the instruction time to be used for onsite classroom instruction and for onsite instruction which will be performed utilizing the installed equipment or systems.

3. All systems and subsystems requiring training of qualified personnel to properly operate and maintain those systems shall be identified. A task and skills analysis shall be documented to identify special skills required to operate and/or maintain critical, complex or specialized systems. After the skill requirements are approved, the actual training program shall be defined.

4. The Contracting Officer will review the Contractor's proposed training plan, and the Contracting Officer's approval of the plan shall be obtained by the Contractor prior to the start of any training. The Contracting Officer will require 30 days for review and approval of the plan or for disapproval and return to the Contractor for resubmission. The Contractor needs to provide

sufficient float time for any necessary resubmissions to preclude possible delays to the scheduled training.

5. The Contractor will provide a draft and final training plan and schedule. The plan shall provide the following information at a minimum:

a. Trades to be trained and skills required.

b. Instructional methods.

c. Materials

d. Special training devices needed to support the program of instruction.

e. Attendees - planned and actual

f. A weekly outline of all scheduled training.

g. A day-to-day schedule showing time intervals, the major and subordinate subjects to be covered in each session, with location of training.

h. Identification and qualifications of proposed instructors.

i. A list of reference material to be provided by the Contractor to the trainees and a list of training materials such as operation and maintenance instructions, other written and visual aids, mockups, tools, etc.

6. The MP&SOMM will be used as the primary training document for the training instructions.

7. Informal maintenance information shall be provided. General on-the-job training shall be provided by Contractor/subcontractor/Supplier personnel knowledgeable of the materials, finishes, equipment or systems, if determined necessary the Contracting Officer, for general knowledge, equipment orientation, installation observation, etc

M. Exhibits

1. Illustrations shall be incorporated to identify schematic drawings, riser diagrams, wiring requirements, etc., as required to provide a stand-alone comprehensive O&M manual.

2. The as-built drawings are to be kept on site for reference. All changes or additional information that arise during construction and during the five year O&M period shall be recorded and kept as a part of the manual. All detailed information shall be presented in a clear, concise and comprehensive manner to fully explain the as-built conditions. The Contractor shall provide changes to the as-built drawings to the CO of any work performed by contractor personnel which cause changes including, but not limited to, plant layout, piping or equipment design or detection of an error within 90 days of change.

3. An index of all illustrations and data shall be developed and presented in draft and for final approval in the submittal process.

Exhibit SOW-3

Index of Volumes

Volume	Description
1	Comprehensive Management Plan
2	Site Systems
3	Architectural Systems
4	Security Systems
5	Fire Protection Systems
6	Plumbing Systems
7	Mechanical Systems
8	Electrical Systems
9	Specialty Systems

The Design, Construct, Commission Pilot Program consists of a two phased program during which the Contractor of Record provides continuous service. This pilot program streamlines the transition from construction into the operating phase of the building. Continuity will be provided by including the design team, construction Contractor and the owner/user in the critical initial phases of occupancy, through the warranty periods of systems and equipment and into the first five years of occupancy. Further enhancement is achieved by insuring continuity of knowledge and professionalism remains consistent during the first five years of operation at the facility. Preventive and Corrective/Unscheduled Maintenance will be provided under this program. Minor repairs will be accomplished as part an organized approach. The building systems will be monitored and benchmarked throughout the life cycles of the system. Emergency responses will be provided using a priority matrix.

Phase 1 of the pilot project spans the routine construction services through the Beneficial Occupancy Date of the Rochester USARC. Phase 2 spans the first five years of use, concerning the operation and maintenance of the Rochester USARC. The intention of the pilot program is to design, construct, and maintain the facility such that all building systems and equipment perform within the performance guidelines throughout the life cycle of the facility.

This comprehensive approach will create seamless O&M support service from design, construction, move-in and through the first five years of occupancy. The following documents guide the execution of the operation and maintenance mission:

- Construction Documents – Drawings and Specifications

- Operation and Maintenance Statement of Work
- Index of Volumes
- Equipment Manufacturers' Instructions

The Construction Documents, comprised of Drawings and Specifications, serve as means for constructing the facility and bringing the systems and equipment into an integrated whole allowing the facility to function as designed. These documents serve as the basis for establishing performance criteria for each building system.

The Operation and Maintenance Statement of Work defines the requirements of the Contractor during the operation and maintenance phase of the contract.

The Index of Volumes is intended to serve as an outline for the systems to be maintained by the Contractor.

Equipment Manufacturers' Instructions are specification and support documents provided by the manufacturers of the equipment and systems installed in the Rochester USARC.

Using the outline provided in Exhibit SOW-3 as a guide, the Contractor shall derive three major deliverables to support the O&M phase of the contract:

- A comprehensive management plan that aggregates and integrates all supporting actions required to deliver an effective preventive maintenance program.
- A comprehensive series of operation and maintenance manuals, updated annually, for each of the building systems that serve as guidance documents for the various journeyman-level tradespersons; and
- The execution of an effective maintenance program that meets the objective of the O&M program.